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[54] **SOUND SOURCE SYSTEM BASED ON COMPUTER SOFTWARE AND METHOD OF GENERATING ACOUSTIC WAVEFORM DATA**

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[57] **ABSTRACT**

A sound source apparatus has operation blocks composed of softwares used to compute waveforms for generating a plurality of musical tones through a plurality of channels according to performance information. In the apparatus, a setting device sets an algorithm which determines a system composed of selective ones of the operation blocks systematically combined with each other to compute a waveform specific to one of the musical tones. A designating device responds to the performance information for designating one of the channels to be used for generating the musical tone. A generating device allocates the selective operation blocks to the one channel and systematically executes the allocated selective operation blocks according to the algorithm so as to compute the waveform to thereby generate the musical tone through the channel. The generating device responds to a variable sampling frequency for executing the operation blocks to successively compute samples of the waveform in synchronization to the variable sampling frequency so as to generate the musical tone, and sets the variable sampling frequency according to process of computation of the waveform by the operation blocks.

52 Claims, 41 Drawing Sheets